



PATENT

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Trudi Thompson
Trudi Thompson

Applicant : Gregory G. Spanjers, et al. Confirmation No. 6147
Application No. : 10/701,030
Filed : November 3, 2003
Title : DUAL-MODE CHEMICAL-ELECTRIC THRUSTERS FOR
SPACECRAFT

Grp./Div. : 3746
Examiner : Unassigned

Docket No. : 51438/DJB/W382

**INFORMATION DISCLOSURE STATEMENT
37 CFR § 1.97(b)**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Post Office Box 7068
Pasadena, CA 91109-7068
February 3, 2005

Commissioner:

In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is FORM PTO/SB/08A/B listing the references that are known to applicant. Copies of each of the references listed under "Other Documents" are enclosed. This filing is timely because it is made during one of the periods described in 37 CFR § 1.97(b).

It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patent issuing for this application. Applicant also requests that an initialed copy of FORM PTO/SB/08A/B be entered

Application No. 10/701,030

in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By Cynthia A. Bonner
Cynthia A. Bonner
Reg. No. 44,548
626/795-9900

DJB/tt

Enclosures: PTO/SB/08A/B, w/references

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INFORMATION DISCLOSURE

STATEMENT BY APPLICANT

use as many sheets as necessary)

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Applicant(s)

Gregory G. Spanjers, et al.

Group Art Unit

3746

Examiner Name

Unassigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	DOCUMENT NUMBER Number - Kind Code ² (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE
		5,847,315	12-08-1998	Katzakian, Jr. et al.
		5,924,278	07-20-1999	Burton et al.
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		US 6,373,023 B1	04-16-2002	Hoskins et al.

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶ (✓)

OTHER DOCUMENTS

EXAMINER INITIALS	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		ALTMAN et al., "Chapter 7: Hybrid Rocket Propulsion Systems," Published in Space Technology Series: Space Propulsion Analysis and Design, McGraw-Hill, 1995, pp. 365-441, Cover pgs (2)
		ASHBY et al., "Quasi-Steady-State Pulsed Plasma Thrusters," AIAA Journal, Vol. 4, No. 5, May 1966, pp. 831-835
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		BARBER et al., "Microthrusters Employing Catalytically Reacted N ₂ -O ₂ -H ₂ Gas Mixtures, Tridyne," Journal of Spacecraft, Vol. 8, No. 2, February 1971, pp. 111-116
		BARTOLI et al., "A Liquid Caesium Field Ion Source For Space Propulsion," J. Phys. D: Applied Phys., Vol. 17, 1984, pp. 2473-2483
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FORM PTO/SB/08A/B (10-01) Substitute for PTO-1449A/B INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Attorney Docket Number	51438/DJB/W382
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		BAYT et al., "A Performance Evaluation Of MEMS-Based Micronozzles," 33rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, July 7-9, 1997, AIAA Paper No. 97-3169, pp. 1-10, Cover pg. (1)
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		CUBBIN et al., "Pulsed Thrust Measurements Using Laser Interferometry," Rev. Sci. Instrum., Vol. 68, No. 6, June 1997, pp. 2339-2346
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		JONES, R., "Electromagnetically Launched Micro Spacecraft For Space Science Missions," AIAA Aerospace Sciences Conference, January 11, 1988, AIAA Paper No. 88-0068, pp. 1-9, Cover pg. (1)
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		MacLELLAN et al., "Lincoln Experimental Satellites 5 And 6," AIAA 3rd Communications Satellite Systems Conference, April 6-8, 1970, AIAA Paper No. 70-494, pp. 1-11, Cover pg. (1)
		MAHONEY et al., "Electrohydrodynamic Ion Source," Journal of Applied Physics, Vol. 40, No. 13, December 1969, pp. 5101-5106
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		MITTERAUER, J., "Miniaturized Liquid Metal Ion Sources (MILMIS)," IEEE Transactions on Plasma Science, Vol. 19, No. 5, October 1991, pp. 790-799
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	Filing Date	November 3, 2003
	Applicant(s)	Gregory G. Spanjers, et al.
	Group Art Unit	3746
	Examiner Name	Unassigned

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